Introduction to Recent Developments in Alternative Finance: Empirical Assessments and Economic Implications

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Abstract: This paper is the introduction to the forthcoming book, *Recent Developments in Alternative Finance: Empirical Assessments and Economic Implications, Proceedings of Second International Symposium in Computational Economics and Finance*. The conference was held in Tunis, Tunisia, March 15-17, 2012. The volume will appear as volume 22 of the Emerald Press monograph series, International Symposia in Economic Theory and Econometrics. The topic of the conference was alternative approaches to finance.

Since the recent global financial crisis began in 2008-2009, there has been strong decline in financial markets and investment, huge losses and bankruptcies that have led to a major financial downturn, and a significant economic recession for most developed and emerging economies. Some economists and financial analysts now consider this crisis to be more harmful in some ways than the Great Depression of 1929. Those economists and analysts point to a number of technical issues and limitations associated with the present financial systems, monetary institution rules, accounting and rating formulas, and investment strategies and choices. To try to overcome the financial downturn and, at the same time, to protect the banking systems and financial markets and to reassure investors, central banks have attempted various solutions, governments have introduced new plans (e.g., the Paulson plan), policymakers have included these topic in their political programs, and several conferences and political summits have been organized to discuss the issues. There have been two prevailing lines of thought. According to one line of thought, the extreme risk associated with speculation in sophisticated financial products, the nature of the credit-banking economic system, the gap between real and financial economies, and the strategic errors of monetary institutions constitute the main sources of the financial crisis.[1] On the other hand, it is now argued that this trend needs to be altered. According to that view, monetary institutions, banking and trading systems, rating agencies, and asset pricing modelling need to be reassessed.

Accordingly, there has been a growing search for new forms of alternative finance, management, control, accounting, trading and investment. Alternative finance research is an ongoing process that incorporates finance and innovation. Relative to conventional financial methods, the alternative finance framework enables financial products to be exchanged, but proposes different instruments and alternative products. In effect, alternative finance regroups private equity, seed funds, spin-off funds, ethical finance, and other concepts not always central to conventional finance. Alternative finance also makes use of both private and public finance, incorporating subsidies and refundable donations.

Alternative finance presents challenges and is intended to stimulate investment and promote economic growth and development, as well as to provide a return on investment during turbulent times. Alternative finance is intended to enable better financial risk supervision of derivatives and sophisticated products; control trading, risk management, and investment strategies; help rating agencies and monetary institutions to implement appropriate tools; protect shareholders; and ensure market liquidity and limit bankruptcy.

The notion of alternative finance is not new in the literature but has attracted increasing interest, since the global financial crisis began (2008-2009). While this framework incorporates different investment forms and modalities, including alternative capital, ethical business, microfinance, social and responsible investment, and sustainable durable investment, all share common characteristics associated with moral values, moderate risk, and alternative finance techniques. Several researchers have recently begun to focus on these issues, investigating their different instruments, mechanisms, and channels. Preliminary findings have suggested their abilities to control risk and increase financial market stability.

This volume aims to provide the reader with a comprehensive understanding of alternative finance in its various forms. On the one hand, it addresses certain aspects of the impact of the financial crisis and the failure of monetary and financial institutions to manage financial markets and handle the recent downturn. On the other hand, it presents and discusses

[1] Much evidence now exists that rating agencies wrongly evaluated some financial products, such as subprime credits, and that monetary instruments and tools used by central banks were inappropriate. See Barnett (2012) about major measurement errors in monetary aggregates used by the Federal Reserve.

new research findings associated with alternative forms of investment and finance, and their economic and political implications. This introduction provides a brief overview of alternative finance and then of the book's chapters, along with some broad areas for future research.

The book's first chapter, entitled "Divisia Monetary Aggregates for the GCC Countries," is by Ryadh Alkhareif and William Barnett. Using modern aggregation and index number theory, the chapter builds monthly Divisia monetary aggregates for the Gulf area. The authors point to the superiority of the Divisia indexes over the officially published simple-sum monetary aggregates in monitoring business cycles. The originality of this chapter lies in its being the first study to produce theoretical monetary aggregates for the GCC countries. The study also provides evidence of the potential usefulness of the data in policy, notably when an economy is subject to monetary and technology shocks.

In the second chapter, Iuliana Matei also focuses on the money market and, in particular, the bond market, exploring the "Euro Zone Bond Market and Economic Growth: Evidence from Time-Series Analysis." The chapter investigates the relationships between government bond markets and real GDP growth for 16 Eurozone countries, using Granger causality and cointegration tests. The author shows the time-varying feedback effects of financial development through bond markets on economic growth and variations across the countries under consideration. Such heterogeneity can explain the differences in shock transmissions of financial crises to real activity from one country to another within the Euro area.

In the third chapter, the study by Makram Bellalah and Sonia Ben Said, entitled "International Portfolio Choice: the Case of Market Competition," investigates investment decisions of firms that invest in both home and foreign activities in two countries, when markets for final goods and services are imperfect. Using the Hamilton-Jacobi-Bellman approach, the authors permit the degree of imperfect competition to be different in the two countries under consideration. Overall, the authors find that investment proportions and opportunities and asset pricing relationships can vary across countries, and explain these results by the presence of different types of alternative finance and investment.

In the fourth chapter, entitled "Can the Wealth-to-Income Ratio Be a Useful Predictor in Alternative Finance? Evidence from the Housing Risk Premium," Manuel Armada and Ricardo Sousa focus on asset wealth and housing risk premium relationships. Using cointegration techniques, the authors show that deviations of asset wealth from equilibrium can track time-variation in expected housing returns in a set of industrialized countries. In particular, the housing risk premium can be driven by shocks to the wealth-to-income ratio, and the size and signs of variations in housing risk premia depend upon whether housing assets are complements or substitutes for financial assets. These findings can have different implications. For example, the development of investment strategies for hedging against the risk of unfavorable housing fluctuations may depend on the nature of the relationship between financial and housing assets.

Chapters 5 and 6 look at mutual finance approaches. Chapter 5, entitled "The Challenges to the Mutual Financial Sphere: Statues to the Test Development," by Michel Roux investigates the characteristics of mutual finance industries and insurance companies. The author discusses the main challenge facing mutual finance and investigates the impact of the financial crisis through cooperative banks and mutual insurance companies. Chapter 6, entitled "The Origins of Mutualists Finance," by Philippe Naszalyi discusses the origins of mutual finance and its future role. According to the author, mutual finance can be a basis for alternative finance, reflecting its ethical aspects. He suggests that mutual finance can help us to grasp the challenges of alternative finance. Chapter 7 by Daniel Bachet, entitled "Can Cooperative Banking Become an Alternative to Capitalistic Finance," compares privately owned and cooperative banks. The author explains the differences between cooperative and private ownership banks in terms of their socially-oriented origins and purpose. The authors present the institutional conditions underlying the forms of cooperative finance that can stimulate alternative finance and investment.

Chapters 8-12 focus on different forms of alternative finance and investment. While chapters 8 and 9 focus on Islamic finance, chapters 9-12 discuss employee savings, energy finance, and microfinance investment. Chapter 8, entitled "Alternative Financial Decision Principles: Theoretical Foundations of Islamic Bank Capital Structure," by Kaouther Toumi, Wael Louhichi, and Jean-Laurent Viviani examines ethical principles in a bank's financial decision-making processes. In particular, the authors focus on how the adoption of Sharia principles can affect the capital structure of Islamic banks. The chapter argues that trade-off theory is more suitable for Islamic banks and that information asymmetry and agency conflicts might be less important for Islamic institutions than for conventional institutions. The main originality of the chapter lies in its comparison between conventional and Islamic bank structures. Chapter 9 by Geneviève Causse, entitled "Islamic Finance: an Alternative Finance or an Antidote to the Crisis of Capitalism," also focuses on Islamic finance. The chapter concludes that Islamic banking cannot replace conventional finance systems, but can help to reform and ratify them. The author investigates different hypotheses: coexistence, integration, and substitution among conventional and Islamic financial systems. The main conclusion is that Islamic financial principles provide a possible means for improving and reforming the conventional system. These findings can clarify investment opportunities and portfolio diversification benefits associated with Islamic financial products.

Chapter 10 by Aude d'Andria looks at "The Emergence of Solidarity Employee Savings in France." The author discusses a new alternative investment associated with solidarity savings. After describing the main characteristics of this financial product, she discusses the key implications of such initiatives for French employees. In chapter 11, entitled "Mood-Misattribution Effect on Energy Finance: a Biorhythm Approach," Marc Joëts describes energetic finance, another approach to alternative finance. The chapter focuses on the relationship between emotions and European energy forward prices of oil, gas, coal and electricity. Using a biorhythm approach and quantile regression, the author shows that the use of psychological background theory can help to explain the evolution of energy price dynamics. She suggests that taking the emotion effect into consideration can be relevant to developing alternative investment opportunities and improving energy portfolio allocation. The twelfth chapter, entitled "Is Microcredit a Real Innovation," by Laurence Attuel-Mendès presents microfinance as a promising form of alternative finance, and assimilates microcredit with real innovation. The author argues that microcredit practices offer potentially promising methods for finance institutions to guide their projects and development.

The three last chapters in this volume focus on hedge fund products. Although several analysts have criticized this type of product, these chapters propose ways to reform and better control such products. In particular, chapter 13, "Estimation of Non Gaussian Returns: The Hedge Fund Case," by Naceur Naguez and Jean-Luc Prigent describes a new approach to measurement of hedge fund returns. Applying the Johnson distributions within parametric and nonparametric methods, the authors explore hedge fund dynamics modelling. The study shows that taking asymmetric and non-Gaussian characteristics into account in hedge fund data can help to improve modelling, forecasting of future dynamics, and risk management.

In chapter 14, "Hedge Funds and Dynamic Risk Modeling," Wafa Kammoun Masmoudi points to the limitations of conventional models for evaluating hedge fund performance. She develops a framework using a Bayesian, time-varying, CAPM-based beta model within a state-space technology, with the objective of modelling the dynamic risk structures of hedge funds. The author shows that such modelling can help to explain the relationship between hedge funds and risk factors.

Finally, the last chapter, "Evaluation of Hedge Fund Return Value at Risk Using GARCH Models," by Sabrina Khanniche also focuses on hedge fund market risk. The author highlights the fact that hedge fund dynamics exhibit asymmetry, ARCH effect, and nonlinearity. These phenomena may induce time-variation of hedge fund volatility. To test this hypothesis, the author applies GARCH models and concludes that GARCH-VAR techniques are well suited to model hedge fund risk, to improve risk management for hedge funds, and to define appropriate financial strategies.

This book's chapters explore implications of the dynamics of economic and financial series, properties of the financial crisis, and consequences of its main outcomes. The empirical findings provide evidence of limitations in standard modelling and conventional financial instruments. Although alternative finance covers several types and forms of investment and capital, all of chapters share common emphasis on moderate risk and decreased speculation. Alternative finance seeks to help to reform and improve conventional finance,e but not to replace it.

Overall, the research topics discussed in these chapters provide a rapid overview of major areas of alternative finance and open up areas for future research. For example, chapter 1 offers challenging avenues for understanding new monetary aggregates and instruments.

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